

## CLAIMS

1. An assembly system (10) of a thermocouple (16) for a gas turbine comprising a supporting element (12) in which said thermocouple (16) is housed, characterized in that  
5 said supporting element (12) includes a series of holes (45) for the inlet of the discharge gases of the gas turbine and a cavity (50) in which they are mixed before flowing through an opening (14) of the supporting element (12).
- 10 2. The assembly system (10) according to claim 1, characterized in that said opening (14) of the supporting element (12) is positioned centrally with respect to a base surface (13) of a first portion (11) of the supporting element (12) itself.
- 15 3. The assembly system (10) according to claim 1, characterized in that said series of holes (45) is situated in a second portion (40) of the supporting element (12), and is opposite the opening (14) with respect to the axis of the supporting element (12).
- 20 4. The assembly system (10) according to claim 1, characterized in that said series of pass-through holes (45), said cavity (50) and said opening (14) are intercommunicating.
5. The assembly system (10) according to claim 1, char-  
25 acterized in that the thermocouple (16) has an end (17)

which protrudes from the opening (14) of the supporting element (12).

6. The assembly system (10) according to claim 1, characterized in that said supporting element (12) is substantially an internally hollow cylinder.

7. The assembly system (10) according to claims 2 and 4, characterized in that said supporting element (12) comprises a first base portion (30) and a second base portion (31) both connected to the first portion (11) and the second portion (40) of the supporting element (12).

8. The assembly system (10) according to claim 1, characterized in that the supporting element (12), the element (30) and the portion (40) of the assembly system (10) are produced in one piece.

9. An assembly system (10) as previously described and illustrated and for the purposes specified above.

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